

WHAT IS CLAIMED IS:

1. A method of manufacturing a disc drive actuator, comprising steps of:
 - (a) manufacturing a disc drive actuator; and
 - (b) machining a peripheral surface of the actuator.
2. The method of claim 1 wherein machining step (b) comprises machining substantially an entire periphery of the actuator.
3. The method of claim 1 wherein machining step (b) comprises machining the peripheral surface of the actuator to a tolerance of 0.010 inches or less.
4. The method of claim 3 wherein machining step (b) comprises machining the peripheral surface of the actuator to a tolerance having a range from 0.005 inches to 0.010 inches.
5. The method of claim 3 wherein machining step (b) comprises machining the peripheral surface of the actuator to a tolerance of 0.005 inches or less.
6. The method of claim 1 wherein machining step (b) comprises advancing a machining tool about a periphery of the actuator while maintaining contact between the machining tool and the peripheral surface of the actuator.
7. The method of claim 1 wherein manufacturing step (a) comprises manufacturing the actuator such that the peripheral surface has a profile dimension that is greater than a desired final profile dimension, and wherein

00632T 69T5260

machining step (b) comprises machining the peripheral surface to the desired final profile dimension.

8. The method of claim 7 wherein manufacturing step (a) comprises manufacturing the actuator such that the peripheral surface has a profile dimension that is greater than the desired final profile dimension by an amount ranging from 0.020 inches to 0.030 inches.
9. The method of claim 1 wherein manufacturing step (a) comprises generating an extrusion having a cross-sectional shape substantially that of a desired top cross-sectional shape of the actuator.
10. The method of claim 9 wherein manufacturing step (a) further comprises cutting the extrusion into longitudinal sections, each longitudinal section corresponding to a single actuator.
11. The method of claim 1 wherein manufacturing step (a) comprises casting a material in a mold having a desired shape of the actuator.
12. The method of claim 1 wherein machining step (b) comprises machining substantially an entire height of a peripheral surface of the actuator.
13. A disc drive having an actuator manufactured according to a process comprising steps of:
 - (a) manufacturing a disc drive actuator; and
 - (b) machining a peripheral surface of the actuator to a desired profile dimension.

14. The disc drive of claim 13 wherein manufacturing step (a) comprises manufacturing the actuator such that the peripheral surface has a profile dimension that is greater than a desired final profile dimension, and wherein machining step (b) comprises machining the peripheral surface to the desired final profile dimension.
15. The disc drive of claim 13 wherein machining step (b) comprises advancing a machining tool about a periphery of the actuator while maintaining contact between the machining tool and the peripheral surface of the actuator.
16. The disc drive of claim 13 wherein machining step (b) comprises machining substantially an entire periphery of the actuator.
17. The disc drive of claim 13 wherein machining step (b) comprises machining the peripheral surface of the actuator to a tolerance of 0.010 inches or less.
18. The disc drive of claim 13 wherein manufacturing step (a) comprises generating an extrusion having a cross-sectional shape substantially that of a desired top cross-sectional shape of the actuator.
19. A disc drive comprising:
a disc rotatable about a central axis; and
actuator means for supporting and actuating a transducer relative to the disc and having a peripheral surface which is machined to a desired profile dimension within a tolerance that is defined for

limiting variations in resonance characteristics of the actuator means.

2025-03-27 09:23:40